

REMARKS

Applicants respectfully request reconsideration and allowance of the above-identified patent application. Claims 1, 2-18, and 20-32 remain pending, of which claims 1 and 18 are independent method claims and claims 25 and 29 are independent system claims.

Initially, Applicants note with appreciation the Examiner's withdrawal of the previous grounds of rejection.

The Office Action rejects pending independent claims 1 and 18 under 35 U.S.C. § 102(a) as allegedly being anticipated by U.S. Patent No. 6,625,730 to Angelo et al. ("Angelo"); rejects pending independent claims 25 and 29 under 35 U.S.C. § 103(a) as allegedly being unpatentable over *Angelo* in view of U.S. Patent No. 6,141,530 to Rabowsky ("Rabowsky"); and rejects the remaining dependent claims as either allegedly anticipated under 35 U.S.C. § 102(b) by *Angelo* or as allegedly unpatentable under 35 U.S.C. § 103(a) over *Angelo* in view of *Rabowsky*.¹ Applicants respectfully traverse these grounds of rejections.

Applicants' invention, as claimed for example in independent method claim 1, relates to detecting tampering of the computer system. The method includes: booting up the computer system; a boot signature checker monitoring a signal sequence that occurs on the computer system bus coupling the processing device and memory device during the specific act of booting up the computer system; the boot signature checker calculating a boot signature from the monitored signal sequence; comparing the calculated boot signature to an expected boot signature that represents no tampering to the computer system; and determining that tampering has not occurred if the calculated boot signature is the same as the expected boot signature.

Applicants' invention, as claimed for example in independent method claim 18, also relates to detecting tampering of the computer system. The method includes: booting up the computer system; a boot signature checker producing a boot signature that is a function of a signal sequence experienced on the computer system bus between the processing device and the memory device during the specific act of booting; and determining whether the calculated boot signature is indicative of the computer system being tampered with.

¹Although the prior art status of the cited art is not being challenged at this time, Applicants reserve the right to do so in the future. Accordingly, any arguments and amendments made herein should not be construed as acquiescing to any prior art status or asserted teachings of the cited art.

Applicants' invention, as claimed for example in independent system claim 25, relates to a computer system capable of receiving presentable content. The computer system includes: a processing device; a memory device; a local bus coupled to the processing device and the memory device; a decrypter configured to decrypt encrypted content when activated; and a boot signature checker, separate from the processing device, that is coupled to the local bus so as to be able to read a signal sequence asserted on the local bus during booting of the computer system, wherein the boot signature checker is configured to calculate a boot signature from the signal sequence asserted on the local bus coupling the processing device and the memory device.

Likewise, Applicants' invention, as claimed for example in independent system claim 29, also relates to a computer system capable of receiving presentable content. The computer system includes: a processing device; a memory device; a bus coupled to the processing device and the memory device; a decrypter configured to decrypt encrypted content when activated; and means for calculating a boot signature, separate from the processing device, that is a function of the signal sequence experienced on the computer system bus between the processing device and the memory device during booting up of the computer system.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." MPEP § 2131. That is, "for anticipation under 35 U.S.C. 102, the reference must teach every aspect of the claimed invention either explicitly or impliedly." MPEP § 706.02. Applicants also note that "[i]n determining that quantum of prior art disclosure which is necessary to declare an applicant's invention 'not novel' or 'anticipated' within section 102, the stated test is whether a reference contains an 'enabling disclosure.'" MPEP § 2121.01. In other words, a cited reference must be enabled with respect to each claim limitation.

In order to establish a *prima facie* case of obviousness, "the prior art reference (or references when combined) must teach or suggest all the claim limitations." MPEP § 2143 (emphasis added). During examination, the pending claims are given their broadest reasonable interpretation, i.e., they are interpreted as broadly as their terms reasonably allow, consistent with the specification. MPEP §§ 2111 & 2111.01.

Applicants respectfully submit that neither Angelo nor Rabowsky—taken individually or in combination—render independent claims (1, 18, 25, and 29) unpatentable for at least the reason the combination does not disclose or suggest each and every element of these independent

claims. For example, the combination of *Angelo* and *Rabowsky* does not disclose or suggest a boot signature checker monitoring a signal sequence that occurs on the computer system bus coupling the processing device and memory device during the specific act of booting up the computer system, as recited in various forms in the independent claims.

Angelo discloses a system for validating a BIOS program and memory coupled therewith by using a boot block program having a validation routine. Unlike Applicants' claimed invention, *Angelo* determines the validity of only memory by comparing hash values of the memory. In particular, a validation routine is run that: first, calculates a current hash value for a BIOS program or other memory; next uses a public key to decrypt a memory's signature; and then determines if the current hash value equals the decrypted signature value using a checksum algorithm or Cyclic Redundancy Check (CRC) to determine any differences. See e.g., col. 7, ll. 18-27.

This, however, is not the same as monitoring a signal sequence that occurs on the computer system bus coupling the processing device and memory device during the specific act of booting up the computer system. Rather than actively computing hash values and decrypting signatures for comparison, Applicants' claimed invention monitors the communication or signal sequence occurring between the processing and memory devices during booting of the computer system. Accordingly, Applicants' claimed invention advantageously checks not only memory tampering, but also tampering of the processor and executable instructions therein that may alter the signal sequence between these devices. Because *Angelo* only computes and compares hash values for memory, *Angelo* cannot possibly disclose or suggest monitoring a signal sequence that occurs on the computer system bus coupling the processing device and memory device during the specific act of booting up the computer system, as recited, *inter alia*, in various forms for independent claims 1, 18, 25, and 29. Therefore, since *Angelo* does not disclose or suggest each and every element of Applicants' claimed invention, *Angelo* does not anticipate or otherwise render these independent claims unpatentable.

Noting some of the deficiencies of *Angelo*, the Office Action cites *Rabowsky*. *Rabowsky* discloses a system and method for digital electronic cinema delivery. *Rabowsky*, however, is silent with regards to boot checking or memory monitoring devices. Accordingly, *Rabowsky* cannot possibly rectify those deficiencies noted above with regard to *Angelo*.

Based on at least the foregoing reasons, therefore, Applicants respectfully submit that the cited art fails to anticipate or make obvious Applicants' invention, as claimed, for example, in independent claims 1, 18, 25, and 29. Applicants note for the record that the other rejections and assertions of record with respect to the independent and dependent claims are now moot, and therefore need not be addressed individually. Accordingly, Applicants do not acquiesce to any assertions in the Office Action that are not specifically addressed above, and hereby reserve the right to challenge those assertions in the future, including the official notice taken by the Examiner, if necessary or desired.

All objections and rejections having been addressed, it is respectfully submitted that the present application is in condition for allowance, and notice to this effect is earnestly solicited. Should any question arise in connection with this application or should the Examiner believe that a telephone conference with the undersigned would be helpful in resolving any remaining issues pertaining to this application, the undersigned respectfully requests that he be contacted at +1.801.533.9800.

Dated this 2nd day of June, 2005.

Respectfully submitted,



RICK D. NYDEGGER
Registration No. 28,065
WESLEY C. ROSANDER
Registration No. 51,030
Attorneys for Applicant
Customer No. 047973